

REMARKS

The Examiner rejected claims 1-8 and 17-20 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner rejected claims 1-4, 7-8 and 17-20, as far as definite, under 35 U.S.C. §102(b) as allegedly being anticipated by Canclini (US Patent 5,223,737).

The Examiner rejected claims 1-8 and 17-20 under 35 U.S.C. §103(a) as allegedly being unpatentable over Canclini in view of Russ (US 2003/0047750).

Applicants respectfully traverse the §112, §102 and §103 rejections with the following arguments.

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35 U.S.C. §112

The Examiner rejected claims 1-8 and 17-20 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, regarding claims 1 and 17, the Examiner alleges that "In claims 1 and 17 the recitation "the opening comprising the semiconductor material but not comprising the second doping impurities" is vague and indefinite as the opening apparently comprises second doping impurities from layer 130 which is n-doped." In response, in both claims 1 and 17, Applicants have deleted the texts "the opening comprising the semiconductor material but not comprising the second doping impurities" and added the texts "wherein the second layer is in direct physical contact with the substrate layer through the opening of the first layer". As a result, claim 1 and 17 are not indefinite under 35 U.S.C. §112, second paragraph. Therefore, other claims that depend from claims 1 and 17 are therefore not indefinite under 35 U.S.C. §112, second paragraph.

Regarding claim 2, the Examiner alleges that "it is not shown where or how the electrode structure 150,160 is in direct physical contact with the first layer 120. There are no figures or explanation of anode 150 in direct electrical contact with first layer 120." In response, Applicants have amended claim 2 to read "wherein *the cathode of* the electrode structure is in direct physical contact with the first layer." (italic emphasis added). In FIG. 2D of the application, the cathode 150a is in direct physical contact with the first layer 120. As a result, claim 2 is not indefinite under 35 U.S.C. §112, second paragraph.

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35 U.S.C. §102(b)

The Examiner rejected claims 1-4, 8 and 17-20, as far as definite, under 35 U.S.C. §102(b) as allegedly being anticipated by Canclini (US Patent 5,223,737).

Applicants respectfully contend that Canclini does not anticipate claim 1, because Canclini does not teach each and every feature of claim 1. For example, Canclini does not teach the feature "a first layer having an opening" of claim 1. The first layer of claim 1 is one piece (FIG. 1A of the application), whereas the regions 1 and 6 of FIG. 7B in Canclini are two separate regions. As a result, the space between the regions 1 and 6 of FIG. 7B in Canclini does not comprise an opening as claimed in claim 1.

Based on the preceding arguments, Applicants respectfully maintain that Canclini does not anticipate claim 1, and that claim 1 is in condition for allowance. Since claims 2-4 and 7-8 depend from claim 1, Applicants contend that claims 2-4 and 7-8 are likewise in condition for allowance.

Applicants respectfully contend that Canclini does not anticipate claim 17, because Canclini does not teach each and every feature of claim 17. For example, Canclini does not teach the feature "a first layer having an opening" of claim 17. The first layer of claim 17 is one piece (FIG. 1A of the application), whereas the regions 1 and 6 of FIG. 7B in Canclini are two separate regions. As a result, the space between the regions 1 and 6 of FIG. 7B in Canclini does not comprise an opening as claimed in claim 17.

Based on the preceding arguments, Applicants respectfully maintain that Canclini does not anticipate claim 17, and that claim 17 is in condition for allowance. Since claims 18-20

depend from claim 17, Applicants contend that claims 18-20 are likewise in condition for allowance.

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35 U.S.C. §103(a)

The Examiner rejected claims 1-8 and 17-20 under 35 U.S.C. §103(a) as allegedly being unpatentable over Canclini in view of Russ (US 2003/0047750).

Applicants respectfully contend that claim 1 is not unpatentable over Canclini in view of Russ, because Canclini in view of Russ does not teach or suggest each and every feature of claim 1. For example, Canclini in view of Russ does not teach or suggest the feature "a first layer having an opening" of claim 1. The first layer of claim 1 is one piece (FIG. 1A of the application), whereas the regions 1 and 6 of FIG. 7B in Canclini are two separate regions. As a result, the space between the regions 1 and 6 of FIG. 7B in Canclini does not comprise an opening as claimed in claim 1. In addition, Russ does not describe any opening as claimed in claim 1.

Based on the preceding arguments, Applicants respectfully maintain that claim 1 is not unpatentable over Canclini in view of Russ, and that claim 1 is in condition for allowance. Since claims 2-8 depend from claim 1, Applicants contend that claims 2-8 are likewise in condition for allowance.

Applicants respectfully contend that claim 17 is not unpatentable over Canclini in view of Russ, because Canclini in view of Russ does not teach or suggest each and every feature of claim 17. For example, Canclini in view of Russ does not teach or suggest the feature "a first layer having an opening" of claim 17. The first layer of claim 17 is one piece (FIG. 1A of the application), whereas the regions 1 and 6 of FIG. 7B in Canclini are two separate regions. As a result, the space between the regions 1 and 6 of FIG. 7B in Canclini does not comprise an

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opening as claimed in claim 17. In addition, Russ does not describe any opening as claimed in claim 17.

Based on the preceding arguments, Applicants respectfully maintain that claim 17 is not unpatentable over Canclini in view of Russ, and that claim 17 is in condition for allowance. Since claims 18-20 depend from claim 17, Applicants contend that claims 18-20 are likewise in condition for allowance.

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CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account No. 09-0456.

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